Swim Meet ER Diagram

For this ER diagram, I made a conscious decision to categorize university as simply another organization like NCAA, and hence used a union in order to include cases where an organization or university hosts certain meets. Within my construction of my team entity, I made it a weak entity since it cannot exist without a university affiliation. I also named my team separate from my university entity since there could be a swim team for guys and girls. In terms of the swim events, I made sure that swim heats are weak entities since they cannot exist without events. I included the attribute of time when an athlete competed in heats in order to track their time and track the winners in each heat.

IMDB ER Diagram

In this diagram, I made a recursive loop for family members and musicians since we only care if this musician has any family members that are musicians. We can also say that there are two relationships between musicians and a recorded song. The musician can either perform/sing a recorded song or produce it since we assume that produces are musicians themselves. We can also make the same assumption that song writers are musicians themselves. In terms of portray who sings a recorded song, I have that either a solo musician sings a recorded song or multiple musicians sings a recorded song who are also part of a music group that has its own identity. In terms of the release of a collection, I made the assumption that each different music format release would be its own separate release. For example, if an artist decides to release his collection on iTunes versus on CD, then those releases would be separate and have a 1:1 relationship. Last but not least, since songs can simply be a movement that part of a larger piece of music, we add a recursive loop to song. For example, in a symphony composed of multiple movement, each movement is a song that points to itself (the symphony) as another song.